Data Analytics

Session 4 – Foundational R Programming - II

**Assignment – 4.3**

**1). Introduction**

This assignment will help you to understand the key concepts learnt in this session.

**2). Objective**

This assignment will test your skills on foundational R programming – Writing Function.

**3). Prerequisite**

Not Applicable

**4). Associated Data Files**

Not Applicable

**5). Problem Statement**

1. States = rownames(US Arrests)

Get states names with ‘w’.

Get states names with ‘W’.

Ans:

library(states)

class(USArrests)

USArrests

States=rownames(USArrests,do.NULL = TRUE, prefix = "row")

States

df=data.frame(States)

df

for (i in 47:50) {print(States[i])}

#Which are 4 states starts with "W"

Washington

West Virginia.

Wisconsin.

Wyoming.

states = c("Washington", "West Virginia", "Wisconsin", "Wyoming")

states

states = toupper("Washington, West Virgina, Wisconsin, Wyoming")

print(states)

states = tolower("Washington, West Virgina, Wisconsin, Wyoming")

print(states)

2. Prepare a Histogram of the number of characters in each US state.

string within the vector to form a final single string and assigning it the object.

Ans:

library(ggplot2)

library(states)

class(USArrests)

States=rownames(USArrests,do.NULL = TRUE, prefix = "row")

States

nchar(States, type = "bytes")

hist(c(nchar(States, type = "bytes")),

main="Histogram of number of characters in each US state",

xlab= "States",

border="blue",

col="yellow",

xlim=c(3,15),

ylim =c(0,14),

las=1,

breaks=10)

# Frequency is Number of 8 characters states are 12 states.

**6). Expected Output**

Not Applicable